<u>REMARKS</u>

<u>Present Status of the Application</u>

The Office Action rejected claims 1-13.   Specifically, the Office Action rejected claims 1, 2, 4, 5, 7-9, 11, and 12 under 35 U.S.C. 102(e) as being anticipated by Shigeta et al. (U. S. Patent 6,646,625; hereinafter Shigeta).   In addition, the Office Action rejected claims 3, 6, 10, and 13 under 35 U.S.C. 103(a) as being unpatentable over Shigeta in view of Nagaoka et al. (U. S. Patent 5,943,032; hereinafter Nagaoka) and further in view of Grossman et al. (hereinafter Grossman).   The Office Action rejected claim 9 under 35 U.S.C. 103(a) as being unpatentable over Shigeta in view of Henlin (U. S. Patent 4,709,346). Claims 1-13 remain pending in the present application, and reconsideration of those claims is respectfully requested.

<u>Discussion of Claim Rejections under 35 USC 102</u>

Claims 1, 2, 4, 5, 7-9, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Shigeta.   Applicants respectfully traverse the rejections for at least the reasons set forth below.

1. With respect to **independent claims 1 and 8**, as for example shown in FIG. 3, the recited features include *the error diffusion unit 320, <u>coupled to the inverse γ conversion lookup unit</u>* to receive the first gray scale data, and to <u>*modify the first gray scale data into a second gray scale data recorded as a display brightness error of the currently displaying pixel by considering a display brightness error of a neighboring pixel of the currently displaying pixel*</u>.

Clearly, the present invention as recited in claim 1 and 8 is directed to the brightness correction after the inverse Gamma conversion by the error diffusion unit.   The error diffusion

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unit considers the display brightness error of a neighboring pixel of the currently displaying pixel. Then, the output of the error diffusion unit is sent to the gray scale lookup unit for producing the sustain pulse number of the currently displaying pixel.

2. With respect to independent claim 11, the brightness correction method of a plasma display includes obtaining the brightness error for each gray scale by measuring ideal display brightness and the actual display brightness, so as to establish the brightness error table.   Claim 11 recites:

> 11. A brightness correction method of a plasma display, comprising:
> obtaining a brightness error for each gray scale by measuring ideal display brightness and actual display brightness thereof, so as to establish a brightness error table;
> receiving a first gray scale data of a currently displaying pixel;
> adding the first gray scale data to a weighted display brightness of a neighboring pixel of the currently displaying pixel as a second gray scale data;
> looking up the brightness error table to obtain the brightness error of the second gray scale data; and
> recording the brightness error of the second gray scale data as the display brightness error of the currently displaying pixel.

3. In Re Shigeta, Shigeta discloses a tuning of brightness level, which is c arried out b y setting the ratio of the number of times of light-emission of sub-fields non-linearly before the inverse Gamma compensation is performed.   Then, the ABL circuit 31 tunes automatically the brightness level of the pixel data D in response to the average brightness of the inverse-Gamma-converted pixel data obtained by applying the inverse Gamma compensation to the pixel data D.   The average brightness detection circuit 311 is indeed used to determine the average brightness (col. 10, lines 4-20; Fig. 6, 7 and 8).

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Clearly, Shigeta discloses a mechanism different from the mechanism of the present invention.

Further in Figs. 15 and 16 of Shigeta, in comparing with FIG 3 of the present invention, the processing circuit 33 of Shigeta does not disclose the error diffusion unit 320 of the present invention. In Shigeta, the circuit 330 needs to use the separation circuit 331 to separate the lower 2 bits of the 8-bit converted pixel data. Then, the lower 2-bit is added with output from the delayer circuit 334 and a multiplication output of the scale multiplexer 335 (col. 12, lines 9-32). Even though the term "error diffusion processing unit 330" is used in Shigeta, the actual operation function is different from the error diffusion unit 320 of the present invention.

Further, the output of the circuit 33 is sent to the dither processing 350 but not for the sustain pulse number of the currently displaying pixel of the present invention.

Therefore, Shigeta does not equally disclose the features as recited in claims 1, 8, and 11.

4. With respect to claims 2 and 5, due to the function of the error diffusion unit 320 of the present invention is different from Shigeta, the circuit structure is then different. For example, the present invention used the adder 321 to directly add the output from the inverse Gamma lookup unit 310 and a weight, *which is a feed back through a brightness error lookup circuit*.

Therefore, Shigeta at least further failed to disclose the features as recited in independent claims 1, 8, and 11, and dependent claim 2 and 5. With at least the same foregoing reasons, Shigeta does not disclose dependent claims 4, 7, 9 and 12.

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Discussion of Claim Rejections under 35 USC 103

1. The Office Action rejected claims 3, 6, 10, and 13 under 35 U.S.C. 103(a) as being unpatentable over Shigeta in view of Nagaoka and further in view of Grossman. The Office Action rejected claim 9 under 35 U.S.C. 103(a) as being unpatentable over Shigeta in view of Henlin.

2. In re Nagaoka and Grossman, both do not supply the missing features as discussed above for independent claims 1, 8, and 11. With at least the same foregoing reasons applied to claim 1, 8, and 11 and claims 2 and 5, claims 3, 6, 10, and 13 are not fully disclosed.

3. With respect to claim 9, Shigeta is in combination with Henlin. However, Henlin does not supply the missing feature to Shigeta as applied to claim 8. Claim 9 is also patentable also with at least the same foregoing reasons.

For at least the foregoing reasons, Applicants respectfully submit that independent claims 1, 8, and 11 patently define over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-7, 9-10, and 12-13 patently define over the prior art references as well, wherein claims 2 and 5 also mores specifically distinguish over the prior art references.
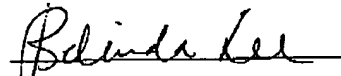
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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-13 of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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